

Natural Gas Hydrates: Macroscopic Application of Microscopic Measurements and Predictions

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This address is intended to be an introduction to natural gas hydrates, giving applications which arise from some fundamental molecular properties. The five major applications are (1) safety, (2) flow assurance, (3) energy recovery, (4) climate change, and (5) gas storage/transportation. A brief overview of thermodynamics will be given, and hydrate kinetics future challenges will be presented. This general overview will serve as background for other hydrate papers presented at the meeting.